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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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05/15/2001

Stephen K. Vernon

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01/23/2006

Christopher P. Harris

Tarolli, Sundheim, Covell & Tummino LLP

526 Superior Avenue, Suite 1111

Cleveland, OH 44114-1400

EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/854,623

Applicant(s)

VERNON, STEPHEN K.

Examiner

Derrick W. Ferris

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7, 10, 16, 17, 19, 21-23 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 17 and 29 is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 10, 19, 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. This Office action is in response to applicant's paper filed 12/27/2005. **Claims 1, 3-7, 10, 16-17, 19, 21-23 and 29** as amended are still in consideration for this application. Applicant has amended claims 1, 6, 16, and 21. Applicant has canceled claims 2, 8, 9, 11-15, 18, 20, 24-28 and 30-31.
3. Examiner **withdraws** the claim objection(s). Examiner thanks applicant for making the necessary corrections.
4. The examiner **withdraws** the anticipated rejection to *Gracon* and corresponding obviousness rejections. In particular, the rejection is withdrawn based on applicant's incorporation of previously allowed subject matter. However, please note a new rejection based on the claims as necessitated by amendment. In particular, the following rejection is made final as necessitated by applicant's amendment to non-final Office action filed 1/11/2005 (i.e., note that all claims in the non-final rejection were rejected and the claims were amended to include at least the further limitation of "to control the data rate to increase the latency of the network" for claim 1 and "the delay processor being operative to store data packets in a plurality of memory buffers for a fixed amount of time and releasing the data packets after the fixed amount of time to increase latency of the network" for claim 6 thus requiring in part a new grounds for rejection, see MPEP 706.06(a)).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. **Claims 1, 3, 4, 19, 22, and 23** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application 2001/0008530 A1 to *Okamoto*.

As to **claim 1**, placing data into a data stream in a network is taught e.g., as packets entering the packet shaper 1 as shown e.g., in figure 1. Routing said data stream through a delay device is taught since the shaper 1 is the delay device. Delaying selected data of the data stream in said network by storing the selected data in memory buffers for a fixed delay amount to control the data rate to increase latency of the network are taught by the functional blocks of figure 1. In particular, packets are stored in a packet buffer section 20. Packets are then released from the buffer based on the scheduling time (i.e.,

the fixed delay) stored in the content addressable memory 23 and the transmission management table 22. Thus the data is controlled to increase the latency of the network. Determining the amount of time the selected data is stored in the memory buffers based on an amount of delay stored in a configuration table is met since the data is scheduled based on time stored in the table, see e.g., paragraph 0020 on page 2.

As to **claim 3**, the fixed delay amount is stored in either the CAM or the packet management table. The scheduler consults the table to determine when to release the selected data from memory buffers.

As to **claim 4**, the round trip latency is inherently taught by the reference since packets are delayed by the packet shaper 1, which would affect the overlay latency of a packet traversing a network including the round trip latency.

As to **claim 19**, the packets are delayed based the flow number.

As to **claim 22**, the release time is the scheduled time, see e.g., figure 2.

As to **claim 23**, see similar rejection to claim 19.

7. **Claims 1, 3, 4, 6, 7, 10, 19, and 21-23** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,912,225 B1 to *Kohzuki et al.* ("*Kohzuki*").

As to **claim 1**, placing data into a data stream in a network is taught e.g., as packets entering the packet shaper 1 as shown e.g., in figure 1. Routing said data stream through a delay device is taught since the shaper 1 is the delay device. Delaying selected data of the data stream in said network by storing the selected data in memory buffers for a fixed delay amount to control the data rate to increase latency of the network are taught by the functional blocks of figure 1. In particular, packets are stored in a packet buffer

section 10. Packets are then released from the buffer based on the scheduling time (i.e., the fixed delay) stored in the scheduled transmission time storage 12. Thus the data is controlled to increase the latency of the network. Determining the amount of time the selected data is stored in the memory buffers based on an amount of delay stored in a configuration table is met since the data is scheduled based on time stored in the time storage 12, see e.g., column 6, lines 26-55.

As to **claim 3**, the fixed delay is stored in scheduled transmission time storage 12 which is consulted to release the selected data from packet buffers 10.

As to **claim 4**, the round trip latency is inherently taught by the reference since packets are delayed by the packet shaper 1, which would affect the overlay latency of a packet traversing a network including the round trip latency.

As to **claim 6**, see similar rejection to claim 1. In addition a first and second processor are taught as terminals which are shown e.g., in figure 2. The delay processor is also shown in figure 2 as the packet forwarding device. Figure 1 further teaches a clock circuit as timer 16 and a controller e.g., as the scheduled transmission time calculator 13. The release time is the scheduled time, see e.g., figure 5.

As to **claim 7**, the packet forwarding device in figure 2 is a router.

As to **claim 10**, the configuration table is stored in the scheduled transmission time storage 12 which is used to determine when to release data packets from (i.e., read packets out of) the memory buffers or packet buffer 10.

As to **claim 19**, packets are scheduled based on priority, see e.g., column 8, lines 11-20. Thus the data is selected by employing a packet selected list that indicates which

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of the data packets are to be delayed based in part on priority. In addition, delay time is also based on flow of a packet which is previously stored or predetermined (i.e., a packet selection list).

As to **claim 21**, one example of a configuration table packet is a packet which is updated based on the previous flag value set in the table which determines whether the scheduled time needs to be updated or not, see e.g., column 8, lines 33-46.

As to **claim 22**, the release time is the scheduled time, see e.g., figure 5 with respect to scheduled transmission time. Also see e.g., column 9, lines 10-51. Note that the release time impacts when a packet is to be release from the buffer thus teaching the release time corresponding to a time at which the selected data is to be released from the memory buffers.

As to **claim 23**, see similar rejection to claim 19.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 5, 6, 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application 2001/0008530 A1 to *Okamoto* in view of U.S. Patent No. 6,732,168 B1 to *Bearden et al.* ("*Bearden*").

As such to **claim 5**, *Okamoto* discloses limitations in the parent claim and a delay processor.

Okamoto is silent or deficient to the further limitation where said network includes at least one client processor, at least one server processor, at least one network router.

Bearden teaches the further recited limitation above at e.g., figure 4. In particular, *Bearden* teaches a client processor as client station 409, a server processor as service server 408, and a router as part of the configurable QoS Enabled network 407. Specifically, see e.g., column 6, lines 1-25 with respect to a router.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Okamoto* by clarifying that a traffic shaper is part of a QoS-enabled network 407 as shown in figure 4 of *Bearden*.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to shape the traffic for QoS purposes. In particular, *Bearden* cures the above-cited deficiency by providing a motivation found at e.g., column 6, lines 1-25.

As to **claim 6**, see similar rejection to claim 5. In addition, a clocking circuit is further taught as a timer section 17 and a controller is taught e.g., as transmission packet registration section 11 in figure 1 of *Okamoto*. In addition, note that the packet management table stores a linkage between the scheduled packets and a packet release time thus teaching a reasonable but broad interpretation of a release time in memory buffers in light of applicant's specification, see e.g., paragraph 0022 on page 2 of *Okamoto*.

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As to **claim 7**, see e.g., column 6, lines 1-25 of *Bearden* with respect to a router.

Examiner notes a same motivation as mentioned for the rejection of claim 5.

As to **claim 10**, see similar rejection to claim 3.

10. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,912,225 B1 to *Kohzuki et al.* ("*Kohzuki*") in view of U.S. Patent No. 6,732,168 B1 to *Bearden et al.* ("*Bearden*").

As such to **claim 5**, *Kohzuki* discloses limitations in the parent claim. In addition, *Kohzuki* teaches e.g., in figure 2 a client as terminals, and a process and router as forwarding devices.

Kohzuki maybe silent or deficient to the further limitation of where said network includes at least a server processor.

Bearden teaches the further recited limitation above at e.g., figure 4. In particular, *Bearden* teaches a client processor as client station 409, a server processor as service server 408, and a router as part of the configurable QoS Enabled network 407.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Okamoto* by clarifying that one of the terminals would connect to a server thus teaching a server processor.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to connect to a server to get client-server information. In particular, *Bearden* cures the above-cited deficiency by providing a motivation found at e.g., column 6, lines 1-25.

Allowable Subject Matter

11. **Claims 16, 17 and 29** are allowed.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DWF

Derrick W. Ferris
Examiner
Art Unit 2663


1/15/06
DERRICK FERRIS
PATENT EXAMINER